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Vice President-Federal Regulatory

March 11, 1999

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EX PARTE

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
The Portals  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

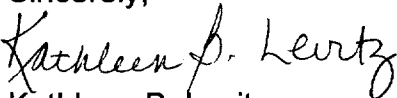
Re: CC Docket No. 98-121

Dear Ms. Salas:

On March 10, 1999, Bob Blau, Randy New, Bill Stacy, Jim Llewellyn, and I, representing BellSouth, met with Michael Pryor, Jake Jennings and Daniel Shiman of the Common Carrier Bureau's Policy and Program Planning Division. The purpose of the meeting was to discuss performance measurements and self executing enforcement mechanisms applicable to BellSouth's nondiscriminatory access to unbundled network elements and the functionalities provided by its operation support systems. The attached documents formed the basis for BellSouth's presentation.

Two copies of this notice are filed in accordance with Section 1.1206(b)(2) of the Commission's rules. Please associate this notification with the proceeding identified above.

Sincerely,



Kathleen B. Levitz  
Vice President-Federal Regulatory

Attachments

cc: Michael Pryor      Jake Jennings      Daniel Shiman

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# BellSouth Proposed Trunk Group Blocking Performance Report

FCC Discussion

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# Executive Summary

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## Objective

BellSouth is proposing a new trunk group blocking report to more fully represent the comparative performance between BellSouth and Competitive Local Exchange Carrier (CLEC).

In the past BellSouth only presented information related to BST and CLEC trunk groups which exceeded certain blocking level thresholds. This reporting method presented all values available and did not differentiate among trunk groups to ensure comparative data which would have permitted better comparative analysis.

The proposed reporting method is described in this document. This description fully accounts for all trunk groups in BellSouth's operating territories and explains clearly how the proposed method provided direct and clear comparison of blocking levels for all relevant trunk groups.

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# Comparison of Proposed Report Method to Existing Report

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## **Existing Report:**

- Reported only trunk group blocking performance exceptions by state
- Exceptions are based upon engineering capacity planning thresholds
- Reported values of a single aggregate blocking value for the cycle reporting period

## **Proposed Report:**

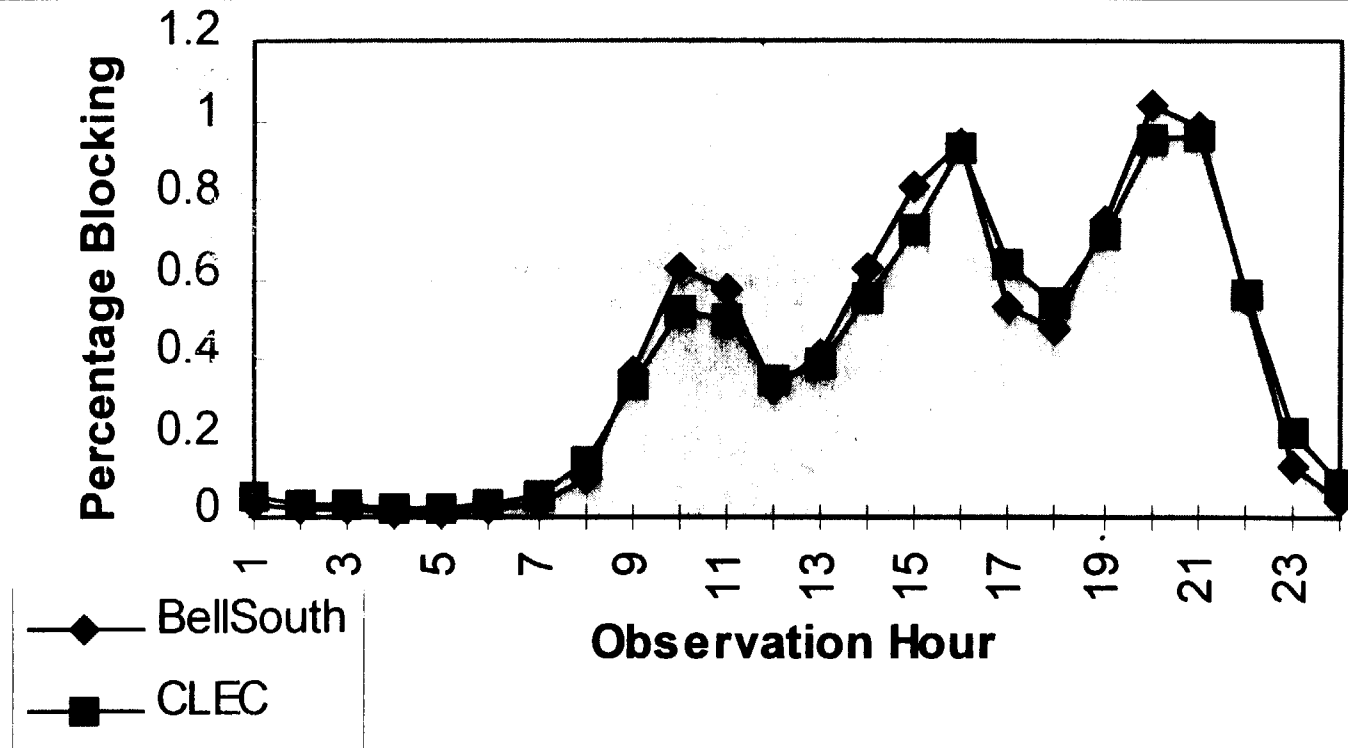
- Reporting of blocking for all comparable trunk groups within a state
- Reported values are aggregate CLEC and BellSouth weighted average blocking for time-consistent hourly blocking for twenty-four hours
- Provides a direct comparison of hour by hour aggregate blocking between CLEC and BellSouth trunk groups

# The Proposed Report

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# Weighted Average Trunk Blocking Georgia (12/18/98 - 1/27/99)

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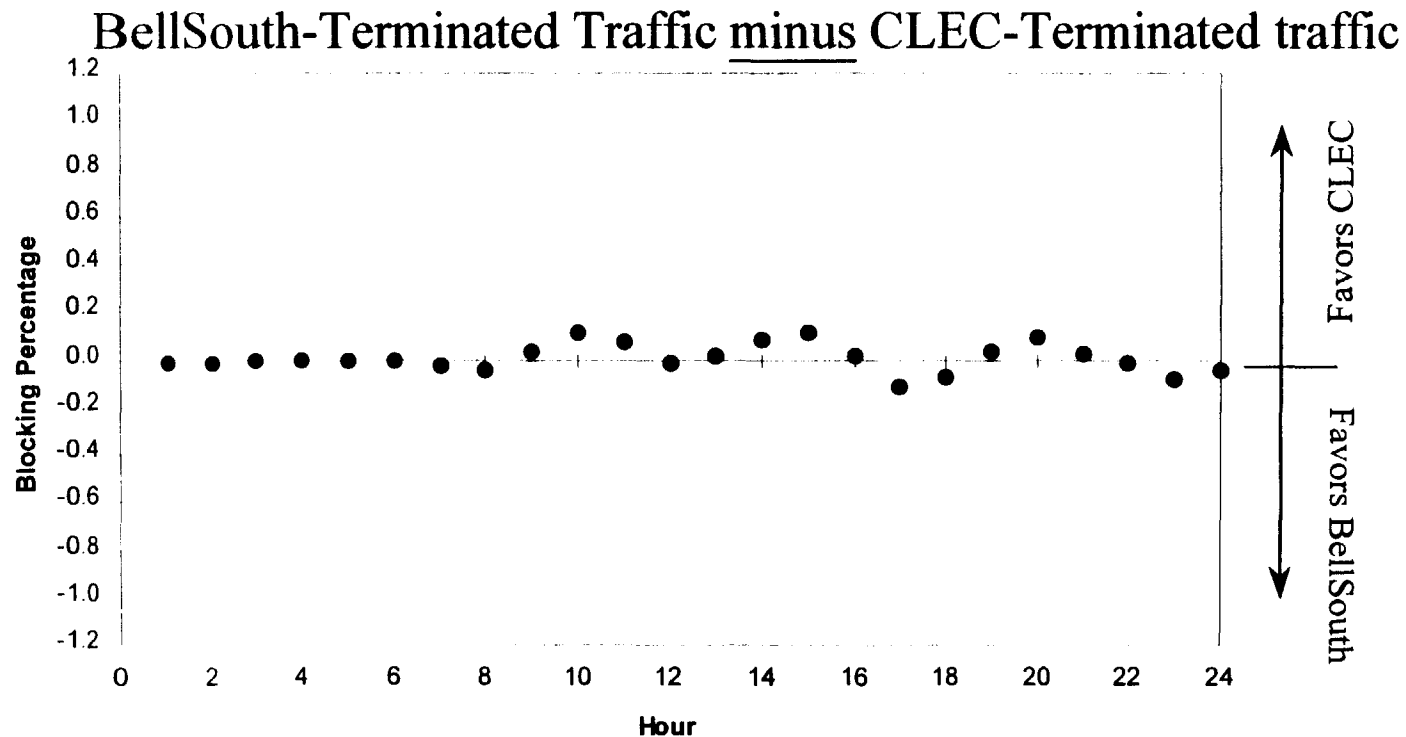


Average percent of blocking during each observation hour over the monthly reporting cycle

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# Differential of Weighted Average Trunk Blocking: Georgia

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The points below the zero line indicate where CLEC blocking is higher than BellSouth's.

# Trunk Performance Report Format

## Trunk Group Performance

Report Period: 12/21/88 - 01/22/89

		Weighted blocking percentage by hour																									
		Total TKGR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>AL</b>																											
BSI	866	0.002	0.002	0.002	0.001	7E-04	0.000	0.022	0.143	0.355	0.45	0.289	0.174	0.28	0.355	0.538	0.549	0.373	0.484	0.773	1.21	0.788	0.205	0.025	0.003		
CLEC	705	0.023	0.011	0.01	0.01	0.014	0.029	0.048	0.158	0.292	0.341	0.273	0.205	0.309	0.378	0.535	0.585	0.473	0.585	0.815	1.218	0.909	0.387	0.1	0.029		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	-0.2	-0.1	0.0		
<b>BA</b>																											
BSI	3350	0.035	0.025	0.024	0.015	0.015	0.023	0.038	0.088	0.372	0.631	0.573	0.325	0.408	0.83	0.828	0.94	0.526	0.474	0.751	1.043	0.982	0.547	0.128	0.045		
CLEC	1670	0.055	0.035	0.034	0.018	0.017	0.027	0.058	0.141	0.337	0.574	0.498	0.343	0.389	0.549	0.719	0.926	0.841	0.544	0.717	0.951	0.98	0.587	0.218	0.089		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	-0.1	-0.1	0.0	0.1	0.0	0.0	-0.1	0.0		
<b>BT</b>																											
BSI	460	0.013	0.008	0.002	0.001	3E-04	0.002	0.008	0.042	0.124	0.2	0.187	0.114	0.152	0.188	0.255	0.288	0.273	0.304	0.39	0.447	0.272	0.108	0.045	0.013		
CLEC	388	0.022	0.013	0.011	0.011	0.012	0.009	0.01	0.077	0.182	0.244	0.262	0.212	0.303	0.39	0.503	0.549	0.488	0.672	1.069	1.218	1.213	0.678	0.324	0.028		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2	-0.4	-0.7	-0.8	-0.9	-0.6	-0.3	0.0		
<b>LA</b>																											
BSI	1265	0.002	0.002	7E-04	8E-04	0.001	0.018	0.007	0.258	0.288	0.367	0.289	0.287	0.281	0.349	0.458	0.458	0.341	0.422	0.587	0.767	0.701	0.318	0.07	0.004		
CLEC	898	0.004	0.002	3E-04	3E-04	5E-04	0.011	0.111	0.344	0.353	0.341	0.293	0.357	0.301	0.324	0.353	0.454	0.518	0.575	0.718	0.79	0.724	0.588	0.196	0.018		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	0.1	0.0	-0.2	-0.2	-0.1	0.0	0.0	-0.3	-0.1	0.0		
<b>MG</b>																											
BSI	842	0	6E-05	9E-05	1E-04	1E-04	0.001	0.002	0.009	0.044	0.03	0.033	0.01	0.018	0.03	0.047	0.035	0.043	0.047	0.075	0.135	0.035	0.004	3E-04	1E-04		
CLEC	822	0	6E-05	9E-05	1E-04	1E-04	0.001	0.002	0.009	0.044	0.03	0.033	0.01	0.017	0.031	0.051	0.067	0.075	0.12	0.214	0.359	0.283	0.157	0.022	4E-04		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	0.0	0.0		
<b>NG</b>																											
BSI	981	0	9E-05	0	0	0	3E-04	3E-04	0.074	0.088	0.14	0.113	0.044	0.054	0.088	0.178	0.382	0.115	0.129	0.307	0.688	0.582	0.144	0.059	6E-05		
CLEC	842	0	0.089	0	0	0	0	0	0.083	0.207	0.312	0.252	0.307	0.158	0.388	0.322	0.502	0.313	0.385	0.525	0.895	0.878	0.381	0.187	0		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.3	-0.1	-0.3	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.1	0.0		
<b>NR</b>																											
BSI	822	6E-04	6E-04	8E-04	9E-04	8E-04	9E-04	0.002	0.02	0.11	0.227	0.207	0.088	0.121	0.197	0.385	0.552	0.284	0.487	0.804	1.088	0.578	0.073	0.013	0.001		
CLEC	632	0.048	0.014	0.008	0.011	0.021	0.033	0.088	0.213	0.278	0.38	0.374	0.301	0.326	0.418	0.588	0.703	0.543	0.818	0.92	1.077	1.055	0.581	0.321	0.144		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	0.0	0.0	-0.5	-0.5	-0.3	-0.1		
<b>SC</b>																											
BSI	532	0.003	0.003	0.004	0.004	0.002	0.005	0.009	0.008	0.021	0.143	0.127	0.028	0.048	0.108	0.357	0.777	0.101	0.145	0.595	0.837	0.689	0.228	0.003	0.003		
CLEC	382	0.002	0.005	0.025	0.003	0.002	0.005	0.01	0.01	0.005	0.021	0.012	0.012	0.028	0.008	0.026	0.108	0.038	0.029	0.04	0.074	0.055	0.005	7E-04	0.002		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.3	0.7	0.1	0.1	0.6	0.9	0.6	0.2	0.0	0.0		
<b>SE</b>																											
BSI	821	6E-04	4E-04	7E-04	9E-04	7E-04	0.001	0.004	0.018	0.22	0.52	0.478	0.242	0.218	0.323	0.555	0.721	0.335	0.334	0.554	0.777	0.55	0.181	0.013	0.008		
CLEC	473	0.007	0.002	0.001	3E-04	3E-04	0.004	0.024	0.125	0.848	1.028	0.884	0.693	0.677	0.86	1.12	1.427	1.014	1.031	1.544	1.896	1.715	1.108	0.251	0.031		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7	-0.7	-1.0	-1.1	-1.2	-0.8	-0.2	0.0		
<b>TN</b>																											
BSI	1392	0.005	3E-04	2E-04	4E-04	0.002	0.01	0.039	0.078	0.382	0.524	0.378	0.193	0.313	0.419	0.61	0.577	0.423	0.595	0.831	1.08	0.889	0.181	0.074	0.028		
CLEC	1026	0.023	0.021	0.018	0.014	0.007	0.011	0.023	0.092	0.285	0.394	0.293	0.172	0.27	0.38	0.515	0.503	0.48	0.575	0.74	0.978	0.557	0.133	0.057	0.033		
X <sub>BSI</sub> -X <sub>CLEC</sub>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0		



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## Additional Detailed Data Provided to CLECs

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- Time consistent busy hour blocking data for each trunk group will be provided to each CLEC for its trunk groups.

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# Appendix:

## Report Development Methodology

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- Network Topology
- Network Route Analysis
- Methods of Calculation

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# Network Topology Review

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- BellSouth has performed an analysis of the traffic bearing trunk groups to assess which trunk groups exhibit blocking and which of these should be used to demonstrate comparative performance in the network.
- The following slides describe the range of functional trunk groups which bear customer traffic. These slides provide a clear basis for categorizing and selecting trunk groups to be used in analyzing performance.

The diagram illustrates a network topology for a CLEC (Competitive Local Exchange Carrier) network. The components and their connections are as follows:

- Independent End Office** (top left) connects to **BellSouth Access Tandem** (2) and **BellSouth Local Tandem** (12).
- BellSouth Access Tandem** (top middle) connects to **BellSouth Local Tandem** (16), **Independent End Office** (16), **Independent Tandem** (15), and **BellSouth End Office** (1).
- Independent End Office** (middle left) connects to **Independent Tandem** (11).
- Independent Tandem** (bottom left) connects to **BellSouth End Office** (13) and **BellSouth Local Tandem** (14).
- CLEC Switch** (bottom left) connects to **Independent Tandem** (15).
- BellSouth End Office** (middle right) connects to **BellSouth Local Tandem** (10) and **BellSouth End Office** (9).
- BellSouth Local Tandem** (top right) connects to **BellSouth End Office** (10) and **BellSouth Local Tandem** (16).
- CLEC Switch** (middle right) connects to **BellSouth End Office** (17) and **BellSouth Local Tandem** (17).
- BellSouth End Office** (bottom right) connects to **BellSouth Local Tandem** (10).
- Wireless Service Provider** (top right) connects to **BellSouth Local Tandem** (20).
- Inter-LATA Toll** (middle right) connects to **BellSouth Local Tandem** (19).
- Interexchange Carrier** (bottom right) connects to **BellSouth Local Tandem** (21).

**Legend:**

- (X) BST Administered CLEC Trunk Group
- BST Administered CLEC Trunk Group
- .-.- CLEC Administered CLEC Trunk Group

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# Trunk Group Categories

## (As Shown in Network Topology Diagram)

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Category	Administrator	Point A	Point B
1	BellSouth	BellSouth End Office	BellSouth Access Tandem
2	BellSouth	BellSouth Access Tandem	Independent End Office
3	BellSouth	BellSouth End Office	CLEC Switch
4	BellSouth	BellSouth Local Tandem	CLEC Switch
5	BellSouth	BellSouth Access Tandem	CLEC Switch
6	CLEC	BellSouth End Office	CLEC Switch
7	CLEC	BellSouth Local Tandem	CLEC Switch
8	CLEC	BellSouth Access Tandem	CLEC Switch
9	BellSouth	BellSouth End Office	BellSouth End Office
10	BellSouth	BellSouth End Office	BellSouth Local Tandem
11	BellSouth	BellSouth End Office	Independent End Office
12	BellSouth	BellSouth Local Tandem	Independent End Office
13	BellSouth	BellSouth End Office	Independent Tandem
14	BellSouth	BellSouth Local Tandem	Independent Tandem
15	BellSouth	BellSouth Access Tandem	Independent Tandem
16	BellSouth	BellSouth Tandem	BellSouth Tandem
17	CLEC	CLEC Switch	CLEC Switch
18	CLEC	Independent End Office	CLEC Switch
19	BellSouth	BellSouth Tandem	Inter-LATA Tandem
20	BellSouth	BellSouth Tandem	Wireless Service Provider
21	BellSouth	BST Tandem	IXC Tandem

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# Network Route Analysis

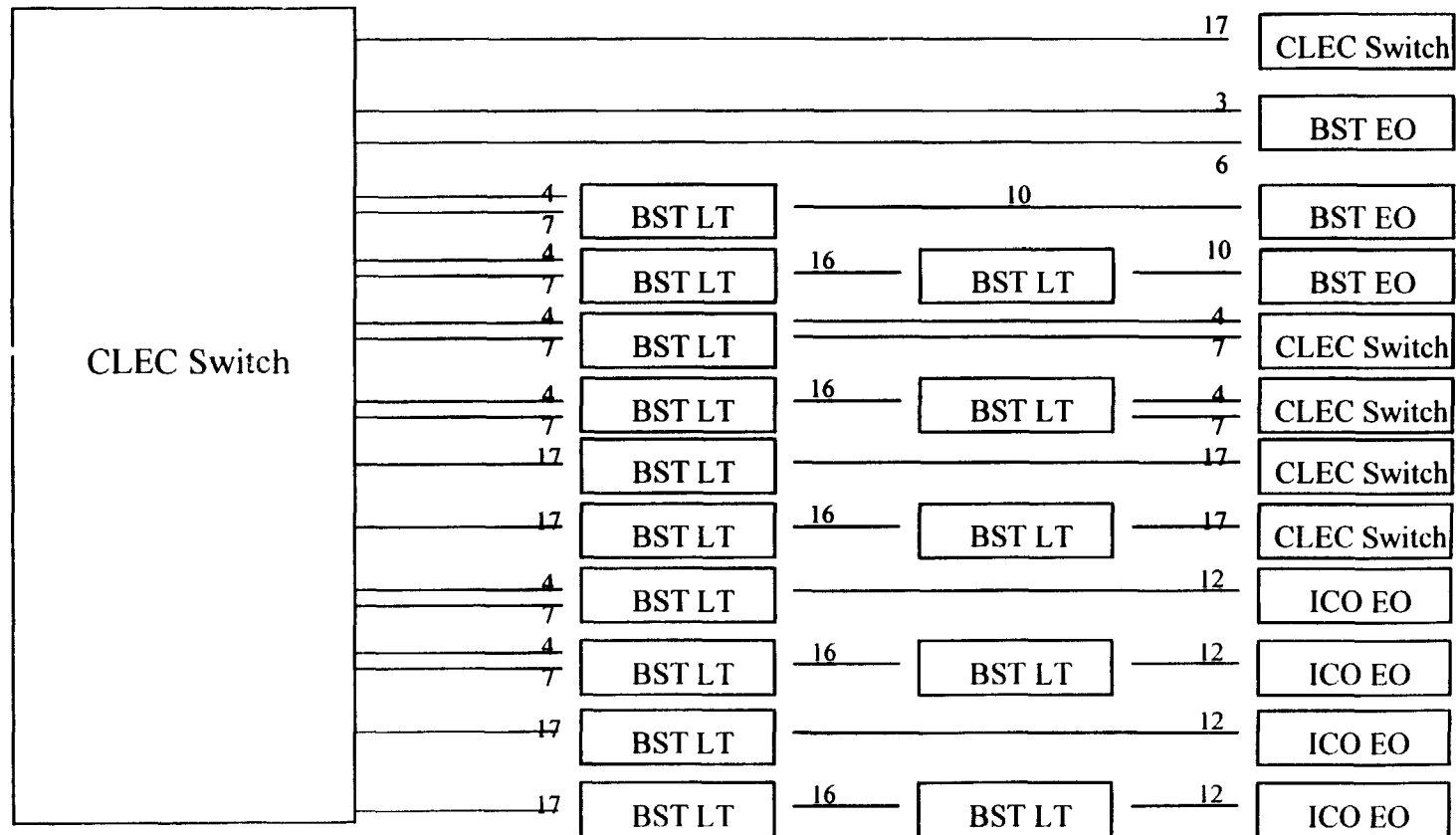
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In order to ensure that all possible trunks in the network were considered for inclusion and exclusion in the trunk blocking comparison process, BellSouth has analyzed all trunks, their roles in the network according to use and their interconnection arrangements.

The following pages contain a full listing of trunk route arrangements for routes terminating at CLEC and at BellSouth end-offices. This information is used in conjunction with the trunk group categories to determine each trunk groups' relevance for comparing CLEC versus BellSouth blocking performance. (The trunk group categories chosen for comparison are listed at the end of this section)

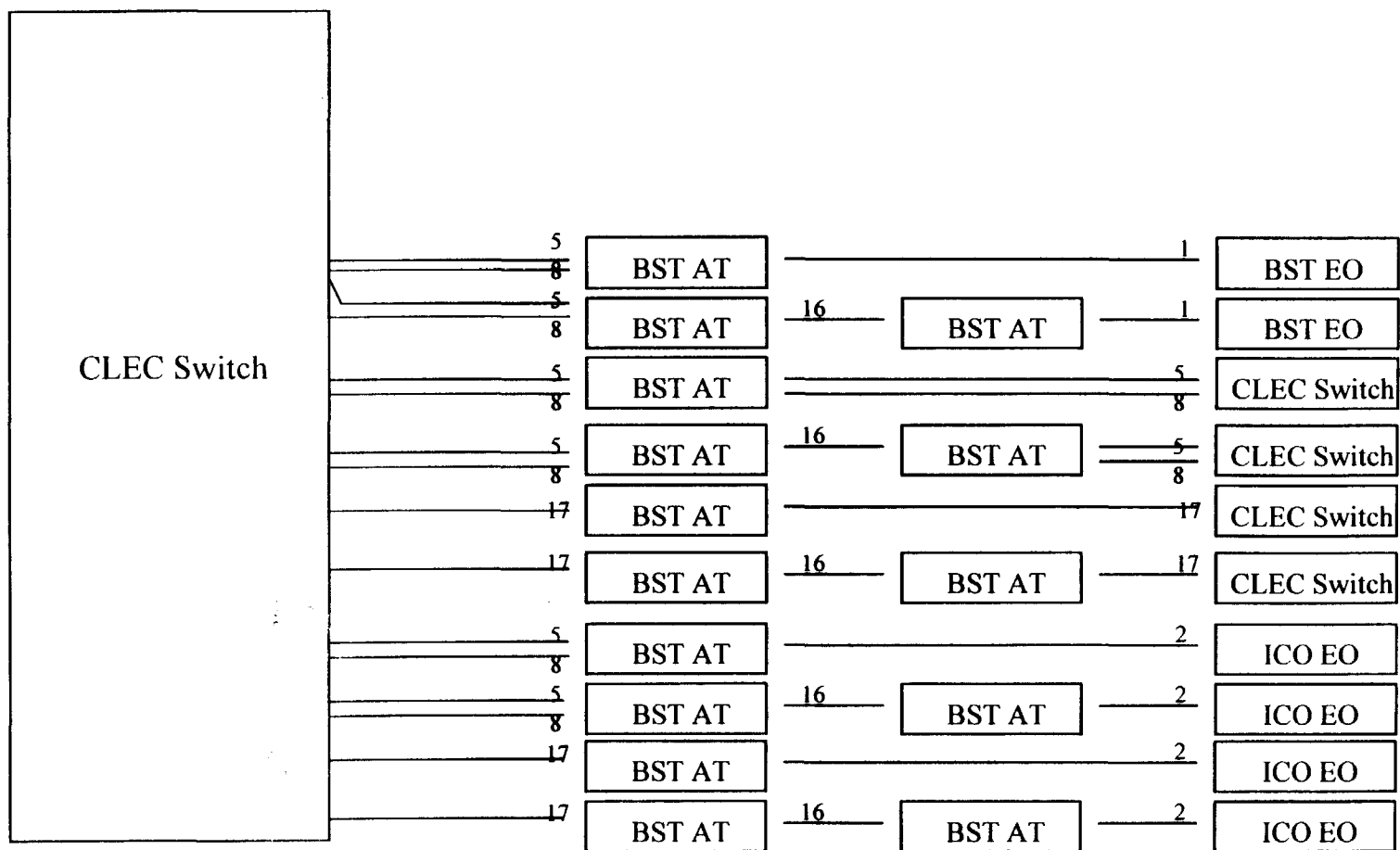
# CLEC Pathways

## (1 of 3)



# CLEC Pathways

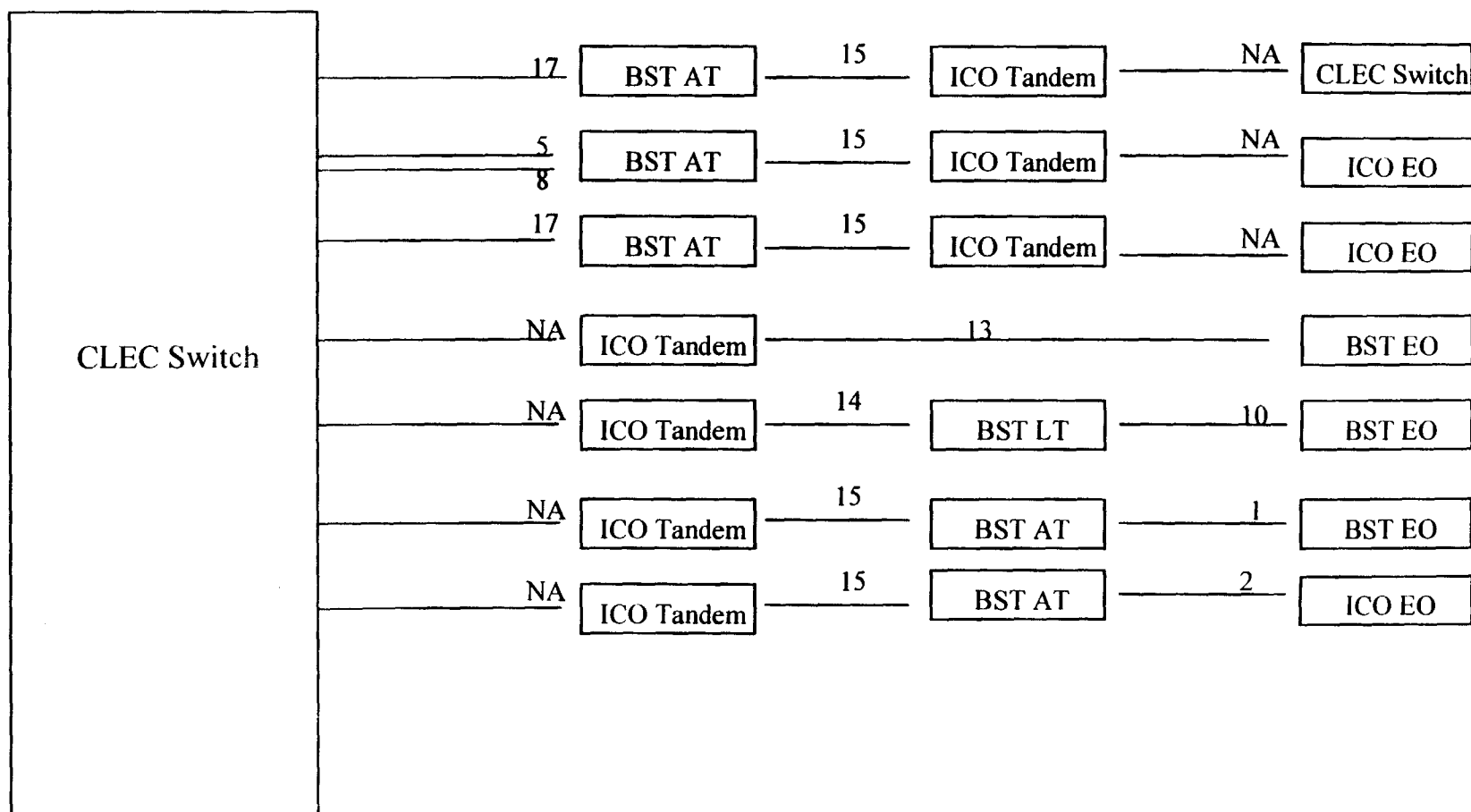
## (2 of 3)





# CLEC Pathways

## (3 of 3)



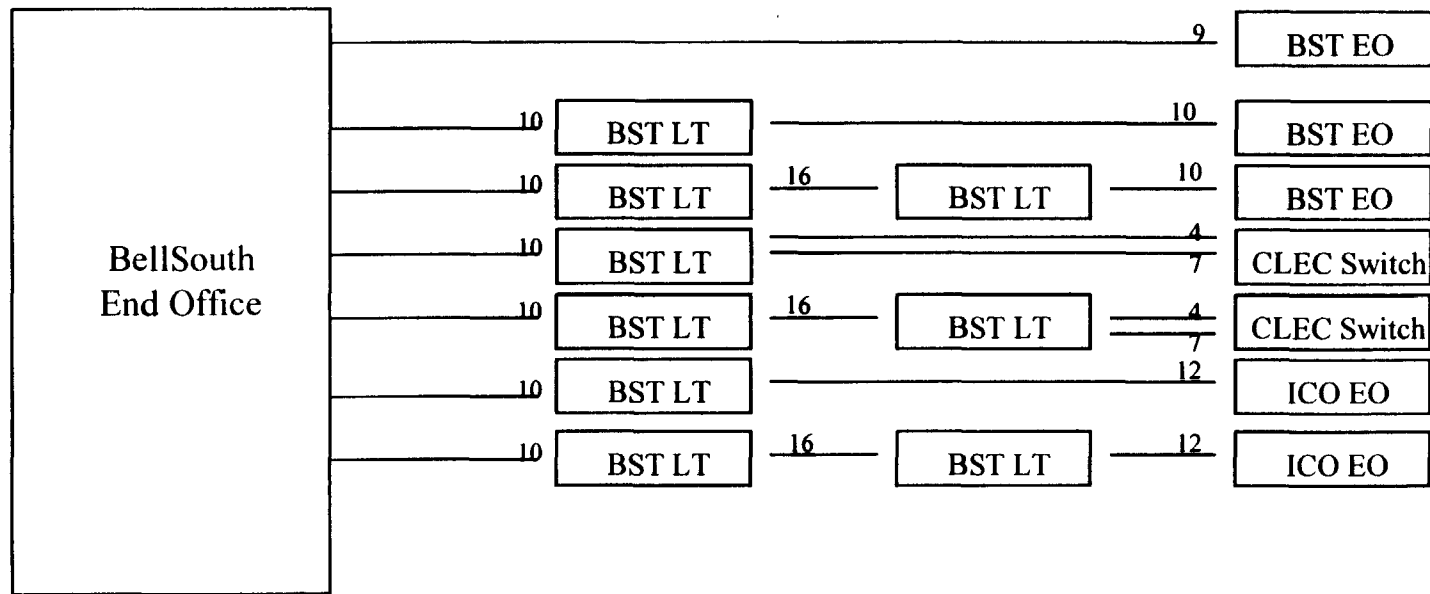
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# BellSouth Pathways

(1 of 3)

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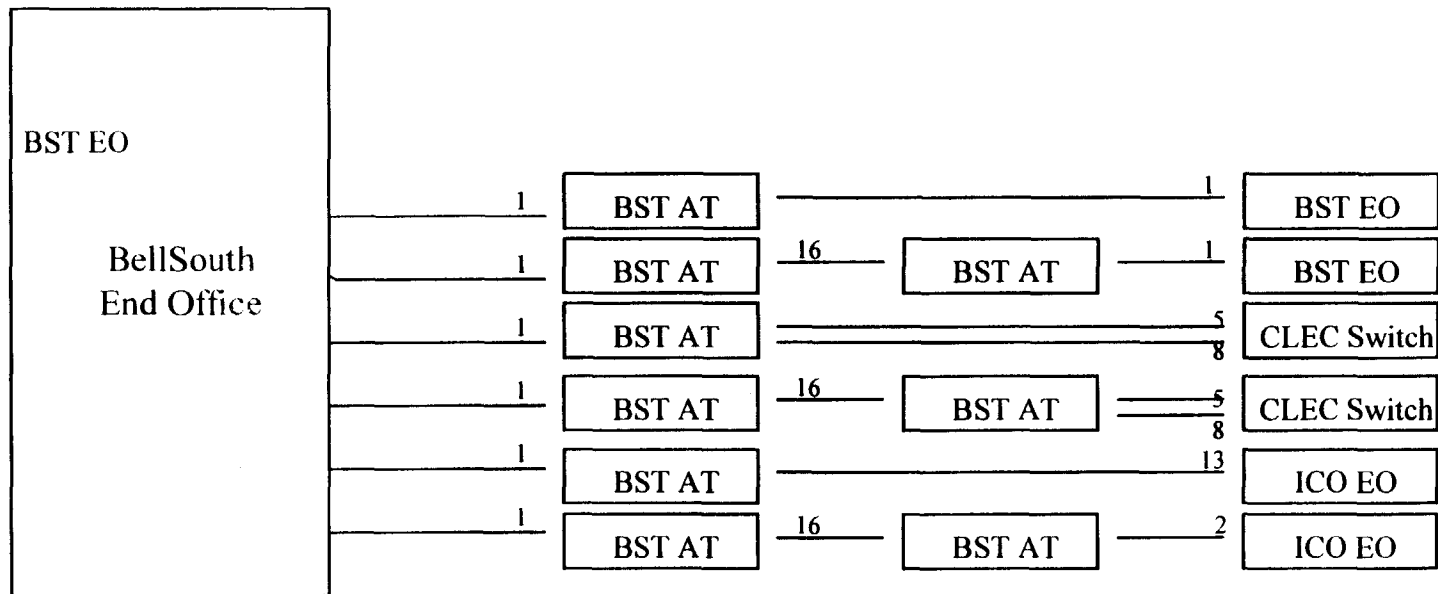


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# BellSouth Pathways

## (2 of 3)

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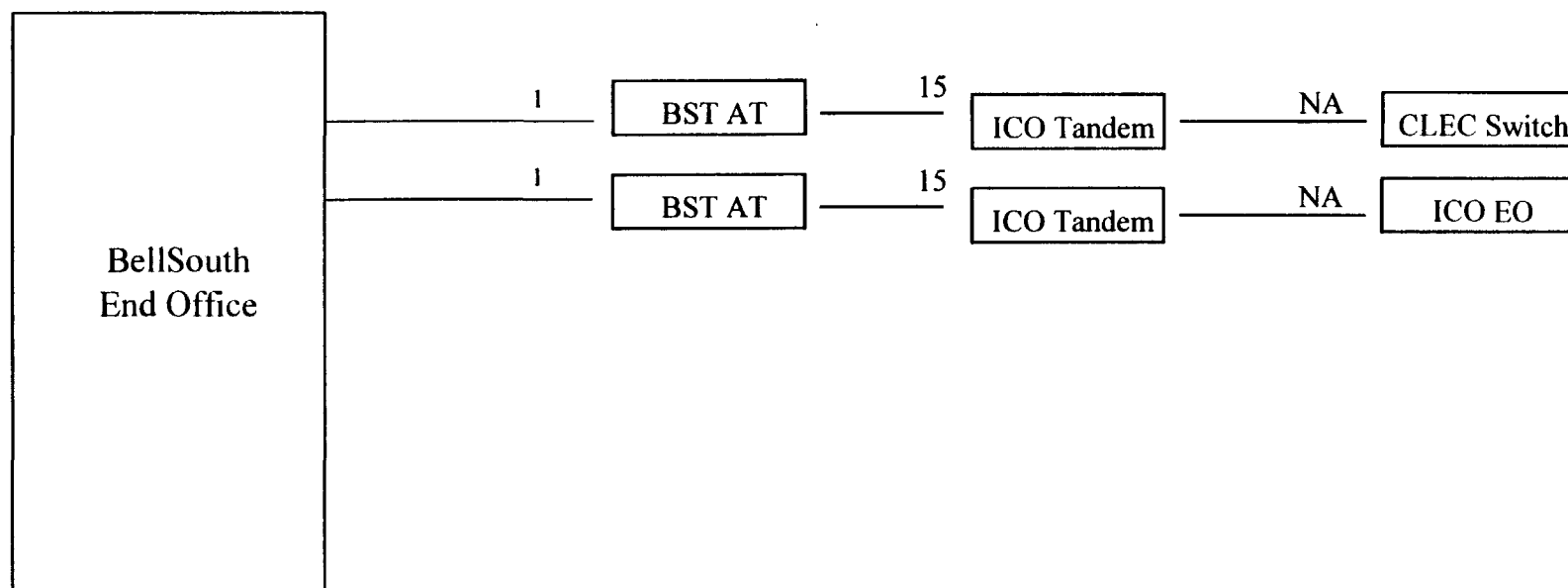
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# BellSouth Pathways

## (3 of 3)

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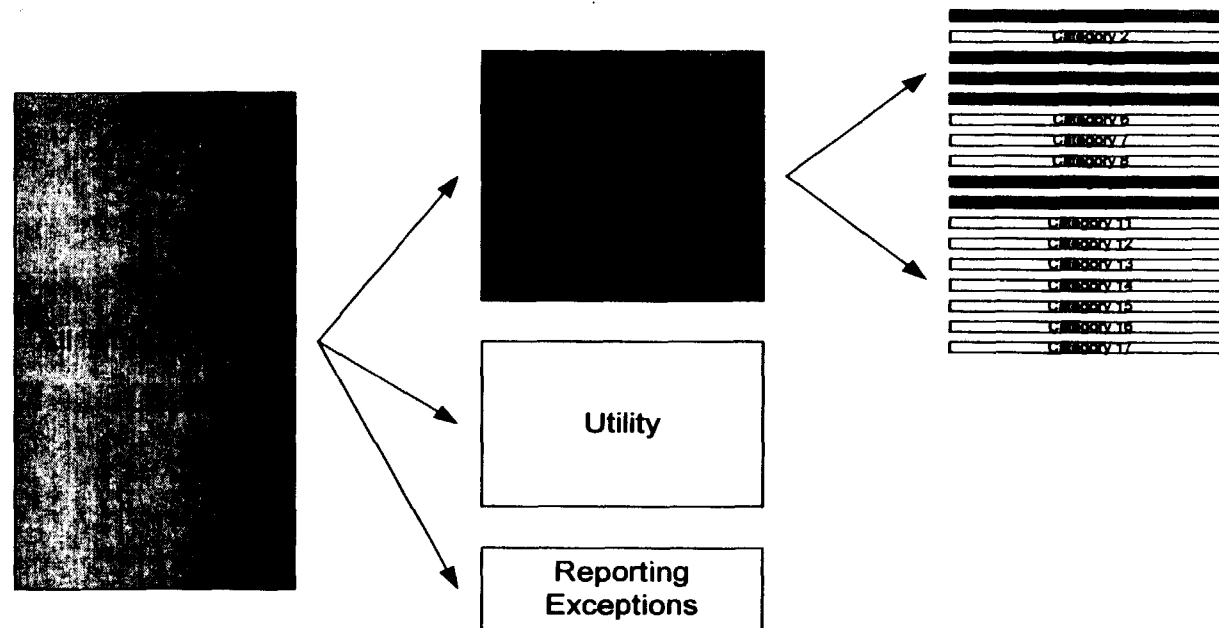
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# Selection of Trunk Group Categories for Comparison

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## The Selection of Trunk Groups Relevant to BellSouth vs. CLEC Blocking Comparison

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- There are nearly 50,000 trunk groups over nine states
- Only a subset of “traffic-bearing” trunks are of interest to compare BellSouth vs. CLEC
- “Exceptions” permit the capture of on-going network changes.

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## Trunk Group Categories Selected for Blocking Comparison (1 of 2)

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### For Traffic Terminating at CLEC End offices

- Category 1 (BellSouth End-Office to BellSouth Access Tandem)
- Category 3 (BellSouth End-Office to CLEC Switch)
- Category 4 (BellSouth Local Tandem to CLEC Switch)
- Category 5 (BellSouth Access Tandem to CLEC Switch)
- Category 10 (BellSouth end Office to BellSouth Local Tandem)
- Category 16 (Inter-Tandem Trunk Groups carry all traffic equally)

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## Trunk Group Categories Selected for Blocking Comparison

(2 of 2)

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### For Traffic Terminating at BellSouth End-offices

- Category 1 (BellSouth End-Office to BellSouth Access Tandem)
- Category 9 (BellSouth End-Office to BellSouth End-Office)
- Category 10 (BellSouth End-Office to BellSouth Local Tandem)
- Category 16 (Inter-Tandem Trunk Groups carry all traffic equally)



# Summary of Traffic Bearing Trunk Groups

CLEC Traffic	BST Traffic	Category	Administrator	Description
R	R	1	BellSouth	BellSouth End Office to BellSouth Access Tandem
NR	NR	2	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
R	NR	3	BellSouth	BellSouth End Office to CLEC Switch
R	NR	4	BellSouth	BellSouth Local Tandem to CLEC Switch
R	NR	5	BellSouth	BellSouth Access Tandem to CLEC Switch
NR	NR	6	CLEC	CLEC Administered Trunk Groups are not considered in comparison
NR	NR	7	CLEC	CLEC Administered Trunk Groups are not considered in comparison
NR	NR	8	CLEC	CLEC Administered Trunk Groups are not considered in comparison
NR	R	9	BellSouth	BellSouth End Office to BellSouth End Office
R	R	10	BellSouth	BellSouth End Office to BellSouth Local Tandem
NR	NR	11	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
NR	NR	12	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
NR	NR	13	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
NR	NR	14	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
NR	NR	15	BellSouth	Traffic from ICO is not relevant to CLEC/BST comparison
R	R	16	BellSouth	Inter-Tandem Trunk Groups Carry all traffic and treat all traffic equally
NR	NR	17	CLEC	CLEC Transient Trunk Groups are administered by CLECs for their own exclusive use.
NR	NR	18	CLEC	Trunk Groups Between CLECs and ICOs are responsibility of connected parties
NR	NR	19	BellSouth	Inter-LATA Toll Trunk Groups treat all traffic equally
NR	NR	20	BellSouth	Wireless Service Provider Trunk Groups are not considered in comparison
NR	NR	21	BellSouth	Interexchange Carrier Trunk Groups treat all traffic equally

R – Reported in the trunk blocking calculations for comparison of CLEC and BST trunk groups.

NR – Excluded or not reported in the trunk blocking calculations due to not relevant to CLEC/BST comparison.

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# Methods of Calculation

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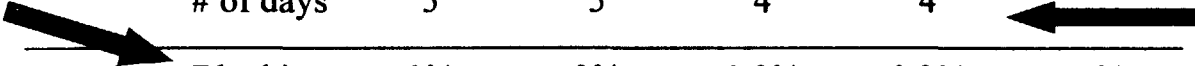
Method of Calculation:  
Monthly Weighted Average Blocking by Hour  
(for each trunk group)

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- Monthly blocking is a weighted average across all weeks for each hour with valid measurement data
  - The weighting factor is the number of valid measurement days
- Weekly blocking is an average of each day's blocking by hour
- Daily blocking is overflow divided by call attempts for each hour on a given day

## Example: Monthly Weighted Average Blocking by Hour for Each Trunk Group

(The example shown here is for a single trunk group)

		Hour	Week1	Week 2	Week 3	Week 4	Monthly		
<b>Weekly Blocking values reflect business day traffic collection only (Mon.-Fri.)</b>	1	Blocking	1%	0.5%	2%	1.5%	1.2%	<b>Number of Days of Valid Data per week is the Weighting Factor</b>	
		# of days	5	5	4	4			
	2	Blocking	0%	0%	0.2%	0.3%	.1%		
		# of days	5	4	3	5			
<b>Only Three Hours of Blocking Data are shown for this Example</b>	3	Blocking	1%	1%	.5%	2%	1.1%		
		# of days	5	5	5	5			

The monthly Weighted Average Blocking for Hour 1 for a particular trunk group is calculated:

$$\frac{(1 \times 5) + (.5 \times 5) + (2 \times 4) + (1.5 \times 4)}{(5 + 5 + 4 + 4)} = 1.2\%$$

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Method of Calculation:  
Aggregate Monthly Weighted Average Blocking  
(for multiple trunk groups)

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- The target is to compare aggregate blocking across trunk groups which terminate traffic at CLEC switches versus BellSouth switches
- The weighting factor in this case is the number of trunks in service assigned to a trunk group included in the average.
- The calculation is performed for hourly data as in the individual trunk blocking case.

# Example Calculation of Aggregate Weighted Average Monthly Blocking

	Trunk Group	Trunks in Service	Blocking for Hour 1	Blocking for Hour 2	Blocking for Hour 3	Blocking for Hour 4
Weighting Factor	A	24	3%	0%	1%	0%
	B	144	2%	0%	1%	0.5%
	C	528	0%	0.5%	1%	1%
	D	316	1%	0%	1%	0.1%
	E	940	1%	1%	4%	0%
	Aggregate		0.8%	0.6%	2.4%	0.3%

Individual Trunk Group Blocking Values

Aggregate Weighted Monthly Blocking Calculated for Hour 1

$$\begin{aligned}
 &= \frac{(3 \times 24) + (2 \times 144) + (0 \times 528) + (1 \times 316) + (1 \times 940)}{(24 + 144 + 528 + 316 + 940)} \\
 &= 0.8\%
 \end{aligned}$$